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REMARKS

Prior to the present amendment, claims 1-21 were pending in the present application. By the present amendment, claims 1, 3, 6, 9-10, 17, and 21 been amended and claims 13 and 19 have been canceled. Thus, claims 1-12, 14-18, and 20-21 remain in the present application. Reconsideration and allowance of pending claims 1-12, 14-18, and 20-21 in view of the above amendments and the following remarks are requested.

A. Rejection of Claims 1-21 under 35 USC §102(b)

The Examiner has rejected claims 1-21 under 35 USC §102(b) as being anticipated by U.S. patent number 6,452,249 B1 to Maeda et al. (hereinafter "Maeda"). For the reasons discussed below, Applicants respectfully submit that the present invention, as defined by amended independent claims 1, 10, and 17, is patentably distinguishable over Maeda.

The present invention, as defined by amended independent claim 1, recites, among other things, an active shield situated in a silicon substrate, a salicided active region situated in the silicon substrate and situated adjacent to at least one side of the active shield, where the active shield has a first conductivity type and the salicided active region has a second conductivity type. As disclosed in the present application, in one embodiment, an active shield, which can comprise a number of fingers, is in a well, which is formed in a substrate. As disclosed in the present application, a salicided active region can be formed in the well and can surround the active shield. The well can be

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formed in a substrate in a semiconductor die. In one embodiment, the active shield can have P type conductivity while the well and the salicided active region can have N type conductivity. As disclosed in the present application, an inductor can be formed in an interconnect metal layer in the semiconductor die and over the active shield.

As disclosed in the present application, since the active shield is electrically connected to ground in the semiconductor die, the active shield provides a clearly defined AC ground for the inductor. Thus, the fingers in the active shield can effectively terminate the electric field generated by the inductor. Also, by connecting the salicided active region (which, in one embodiment, can surround the active shield) to a voltage source greater than or equal to ground, the "PN" junction formed between the active shield and the well can be reverse or zero biased. As a result, leakage current flowing between the active shield and the well can be advantageously minimized. Additionally, any RF noise injected into the well by the inductor will be advantageously shunted to AC ground.

In contrast to the present invention as defined by amended independent claim 1, Maeda does not teach, disclose, or suggest an active shield situated in a silicon substrate, a salicided active region situated in the silicon substrate and situated adjacent to at least one side the active shield, where the active shield has a first conductivity type and the salicided active region has a second conductivity type. Maeda specifically discloses PG (perforated ground) shield 301 including a plurality of doped regions 121 and silicide films 131. See, for example, column 36, lines 26-29 and Figure 40 of Maeda. However,

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in Figure 40 and related text, Maeda fails to teach, disclose, or suggest a salicided active region situated in a silicon substrate and situated adjacent to at least one side of the active shield, where the active shield has a first conductivity type and the salicided active region has a second conductivity type, as specified in amended independent claim 1.

Maeda also discloses PG shield 106 including SOI regions 271 to 279, where silicide films 34 are formed on SOI regions 272, 274, 276, and 278 in SOI layer 3 in SOI substrate SB. See, for example, column 26, lines 64-67 and Figure 20 of Maeda. In Maeda, SOI regions 272 and 276 are N⁺ regions, SOI regions 274 and 278 are P⁺ regions, and SOI regions 271, 273, 275, 277, and 279 are N⁻ regions. See, for example, column 27, lines 22-25 and Figure 20 of Maeda. As discussed above, SOI regions 271 to 279 are part of PG shield 106. Thus, in Figure 20 and related text, Maeda fails to teach, disclose, or suggest a salicided active region situated in a silicon substrate and situated adjacent to at least one side the active shield, where the active shield has a first conductivity type and the salicided active region has a second conductivity type, as specified in amended independent claim 1. Furthermore, SOI regions 271 to 279 of PG shield 106 are situated in SOI layer 3, which is part of SOI substrate SB. Thus, PG shield 106 is not situated in a silicon substrate, as specified in amended independent claim 1.

Thus, the structures disclosed in Maeda are substantially different than the structure as specified in amended independent claim 1. In particular, Maeda fails to teach, disclose, or suggest, an active shield situated in a silicon substrate, a salicided active region situated in the silicon substrate and situated adjacent to at least one side of

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the active shield, where the active shield has a first conductivity type and the salicided active region has a second conductivity type, as specified in amended independent claim 1.

For the foregoing reasons, Applicants respectfully submit that the present invention, as defined by amended independent claim 1, is not taught, disclosed, or suggested by Maeda. Thus, amended independent claim 1 is patentably distinguishable over Maeda and, as such, claims 2-9 depending from amended independent claim 1 are, *a fortiori*, also patentably distinguishable over Maeda for at least the reasons presented above and also for additional limitations contained in each dependent claim.

Amended independent claims 10 and 17 include similar limitations as amended independent claim 1. Additionally, amended independent claims 10 and 17 specify an active shield and a salicided active region situated in a well in a substrate, where the salicided active region is situated adjacent to at least one side of the active shield. Maeda discloses well region NW underlying doped regions 121 of PG shield 301. See, for example, Figure 40 and related text of Maeda. However, Maeda fails to teach, disclose, or remotely suggest an active shield situated in a well in a substrate, a salicided active region situated in the well and situated adjacent to at least one side of the active shield, where the active shield has a first conductivity type and the salicided active region has a second conductivity type, as specified in amended independent claims 10 and 17.

For the foregoing reasons, Applicants respectfully submit that the present invention, as defined by amended independent claims 10 and 17, is not taught, disclosed,

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or suggested by Maeda. Thus, amended independent claims 10 and 17 are patentably distinguishable over Maeda and, as such, claims 11-12 and 14-16 depending from amended independent claim 10 and claims 18 and 20-21 depending from amended independent claim 17 are, *a fortiori*, also patentably distinguishable over Maeda for at least the reasons presented above and also for additional limitations contained in each dependent claim.

B. Conclusion

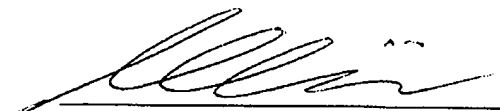
Based on the foregoing reasons, the present invention, as defined by amended independent claims 1, 10, and 17 and claims depending therefrom, is patentably distinguishable over the art cited by the Examiner. Thus, claims 1-12, 14-18, and 20-21 pending in the present application are patentably distinguishable over the art cited by the Examiner. As such, and for all the foregoing reasons, an early allowance of claims 1-12, 14-18, and 20-21 pending in the present application is respectfully requested.

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Respectfully Submitted,
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